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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,333	03/12/2004	Lewis H. Miller	Miller2004	6224

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EXAMINER
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VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/799,333		MILLER, LEWIS H.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Christopher Verdier		3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the frame support cables (claim 2, line 3), the outside support cables (claim 2, lines 3-4), and the plural rotor support cables (claim 2, lines 7-8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3745

The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 6 show(s) modified forms of construction (see the dotted lines for elements 61 and page 6, the description of figure 6) in the same view. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: “61”. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the

Art Unit: 3745

sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because in figure 8, "Lewis: I added bolts on the bearing. Is that correct?" should be deleted. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

The abstract of the disclosure is objected to because lines 2-4 are non-idiomatic, because in line 5, "windmill" should be changed to -- windmills --, because in line 8, "rotors" should be changed to -- rotor --, and because the last line should end with a period. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: Appropriate correction is required.

On page 1, line 1, "TITLE OF THE INVENTION" is superfluous and should be deleted.

On page 1, the patent number 6,857,846 should be provided for the copending application 10/064,180.

On page 2, line 11, "axis" should be changed to -- axes --.

On page 5, the third to last line is non-idiomatic.

On page 6, line 8 should end with a period.

There is no brief description of figure 9 on page 6.

On page 11, fourth to last line, "plates" should be changed to -- plate --.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 4, limitation c, which recites that the angle of less than 60 degrees is formed between the small rectangular sheet and the rotor, has no antecedent basis in the specification.

***Claim Objections***

Claims 3-4 are objected to because of the following informalities: Appropriate correction is required.

In claim 3, lines 2 and 3, "rotors" should be changed to -- rotor --.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by McVey 4,486,143.

Note the stackable vertical axis windmill A comprised of a frame structure 11, 12, 13 and a rotor assembly T.

Claim 1 is also rejected under 35 U.S.C. 102(b) as being anticipated by Ewers 4,134,707.

Note the stackable vertical axis windmill 1 comprised of a frame structure 2 and a rotor assembly 19.

Art Unit: 3745

Claim 1 is also rejected under 35 U.S.C. 102(b) as being anticipated by Ewers 4,245,958.

Note the stackable vertical axis windmill comprised of a frame structure 1 and a rotor assembly 20.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over McVey 4,486,143 in view of Bender 4,687,415 and Ewers 4,134,707. McVey discloses a stackable vertical axis windmill A substantially as claimed, comprised of a frame structure 11, 12, 13 and a rotor assembly T, with the frame structure comprised of plural solid frames 38/39, plural open frames 11/12, with the rotor assembly comprised of plural horizontal rotor assembly supports 35a, 35b, a rotor axis near 10, rotor panel assembly supports 36, a bottom flange assembly 29, a flex coupling assembly (elements 30, 30a, 30b, and 31 which provide some degree of flexibility when assembling the shaft 26 to the flange assemblies 29) and a top flange assembly 29.

However, McVey does not disclose that the frame structure is comprised of plural frame support cables and plural outside support cables, and does not disclose that the rotor assembly is comprised of plural rotor support cables.



Bender (figure 1) shows a vertical windmill having a frame 3 with plural frame support cables 23, for the purpose of reinforcing the frame.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the frame 11, 12, 13 of McVey with plural frame support cables, as taught by Bender, for the purpose of reinforcing the frame.

Ewers 4,134,707 shows a vertical windmill having a frame 2 and plural outside support cables 8, for the purpose of supporting the frame. The cables 8 also function to support the rotor assembly 19.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to provide the modified windmill of McVey with plural outside support cables attached to the frame, which also support the rotor assembly, as taught by Ewers 4,134,707, for the purpose of supporting the frame and the rotor assembly.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over McVey 4,486,143 and Bender 4,687,415 and Ewers 4,134,707 as applied to claim 2 above, and further in view of McCabe 5,711,653. The modified windmill of McVey shows all of the claimed subject matter except for the rotor assembly having the rotor panel assemblies formed of a rotor panel, a trailing

Art Unit: 3745

edge, a leading edge, and a windfoil such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel parallel with the rotor axis.

McCabe (figure 3) shows a windmill rotor having rotor panel assemblies formed of a rotor panel 10, a trailing edge c, a leading edge a, and a windfoil d such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel, for the purpose of providing improved lift to allow more torque at lower speeds.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified windmill of McVey such that the blades 35 are in the form of a rotor panel, a trailing edge, a leading edge, and a windfoil such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel parallel with the rotor axis, as taught by McCabe, for the purpose of providing improved lift to allow more torque at lower speeds.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 3745

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,857,846. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the patent “anticipates” application claim 1. Accordingly, application claim 1 is not patentably distinct from patent claim 1. Here, patent claim 1 requires numerous additional elements such as upper and lower rotor flanges, plural outer rotor blades, plural top rotor braces, etc., while application claim 1 does not require these features. Thus it is apparent that the more specific patent claim 1 encompasses application claim 1. Following the rationale in *In re Goodman* cited in the preceding paragraph, where applicant has once been granted a patent containing a claim for the specific or narrower invention, applicant may not then obtain a second patent with a claim for the generic or broader invention without first submitting an appropriate terminal disclaimer. Note that since application claim 1 is anticipated by patent claim 1 and since anticipation is the epitome of obviousness, then application claim 1 is obvious over patent claim 1.

Claim 2 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,857,846 in view of McVey 4,486,143 and Bender 4,687,415 and Ewers 4,134,707. Claim 2 of U.S. Patent No. 6,857,846 claims

Art Unit: 3745

substantially the same subject matter as claim 2 of the instant application, including a frame structure, a frame support cable, and a rotor assembly comprising plural horizontal rotor assembly supports, an inherent rotor axis, a bottom flange assembly, a flex coupling assembly, a top flange assembly, and plural rotor support cables.

However, claim 2 of U.S. Patent No. 6,857,846 does not claim that the frame structure is comprised of plural solid frames, plural open frames, plural frame support cables, and plural outside support cables, and does not claim that the rotor is comprised of plural rotor panel assembly supports.

McVey shows a vertical axis windmill having a frame structure 11, 12, 13 and a rotor assembly T, with the frame structure comprised of plural solid frames 38/39 and plural open frames 11/12, for the purpose of providing rigid bracing to the frame and guiding wind to the rotor, with the rotor assembly comprised of plural rotor panel assembly supports 36, for the purpose of supporting the rotor.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the windmill of claim 2 of U.S. Patent No. 6,857,846 such that the frame structure is comprised of plural solid frames and plural open frames, and such that the rotor is comprised of plural rotor panel assembly supports, as taught by McVey.

Bender (figure 1) shows a vertical windmill having a frame 3 with plural frame support cables 23, for the purpose of reinforcing the frame.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to provide the windmill of modified claim 2 of U.S. Patent No. 6,857,846 with plural frame support cables, as taught by Bender.

Ewers 4,134,707 shows a vertical windmill having a frame 2 and plural outside support cables 8, for the purpose of supporting the frame.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to provide the modified windmill of claim 2 U.S. Patent No. 6,857,846 with plural outside support cables attached to the frame, as taught by Ewers 4,134,707.

Claim 3 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,857,846 and McVey 4,486,143 and Bender 4,687,415 and Ewers 4,134,707 as applied to claim 2 above, and further in view of McCabe 5,711,653. Modified claim 2 of U.S. Patent No. 6,857,846 claims substantially the same subject matter as claim 3 of the instant application, but does not claim the rotor assembly having the rotor panel assemblies formed of a rotor panel, a trailing edge, a leading edge, and a windfoil such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel parallel with the rotor axis.

McCabe (figure 3) shows a windmill rotor having rotor panel assemblies formed of a rotor panel 10, a trailing edge c, a leading edge a, and a windfoil d such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel, for the purpose of providing improved lift to allow more torque at lower speeds.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified windmill of claim 2 of U.S. Patent No. 6,857,846 such that the blades are in the form of a rotor panel, a trailing edge, a leading edge, and a windfoil such that the trailing edge, leading edge, and windfoil are elongated structures affixed to the rotor panel parallel with the rotor axis, as taught by McCabe.

#### *Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wagle and Goldwater are cited to show a windmill with rotor blade support cables.

Townsend, Gingras, and Rowe are cited to show rotors with blade panel structure.

Stjerholm is cited to show a wind turbine with a flexible coupling.

Adams is cited to show a wind motor with stacked rotors.

Ryan is cited to show a windmill with bearing assemblies.

Butler is cited to show a building with wind turbines located in corners of open frames.

Art Unit: 3745

Lord, Brauser, Li, McCombs, Kutcher, Thomas, Smedley, Minchey, Blowers, Lawson-Tancred, Baksin, Chertok, and Cummings were either cited by Applicant or cited in the parent application, and are cited to show various windmill structure.

*Allowable Subject Matter*

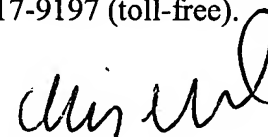
Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.  
April 21, 2006

  
Christopher Verdier  
Primary Examiner  
Art Unit 3745